

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P843537

Luminaire Tested: **LD4C25DE010B40 EU4C25B40 4LBLDWWLI**

Issue Date: 5/7/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P843537  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C25DE010B40 EU4C25B40 4LBDWWLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

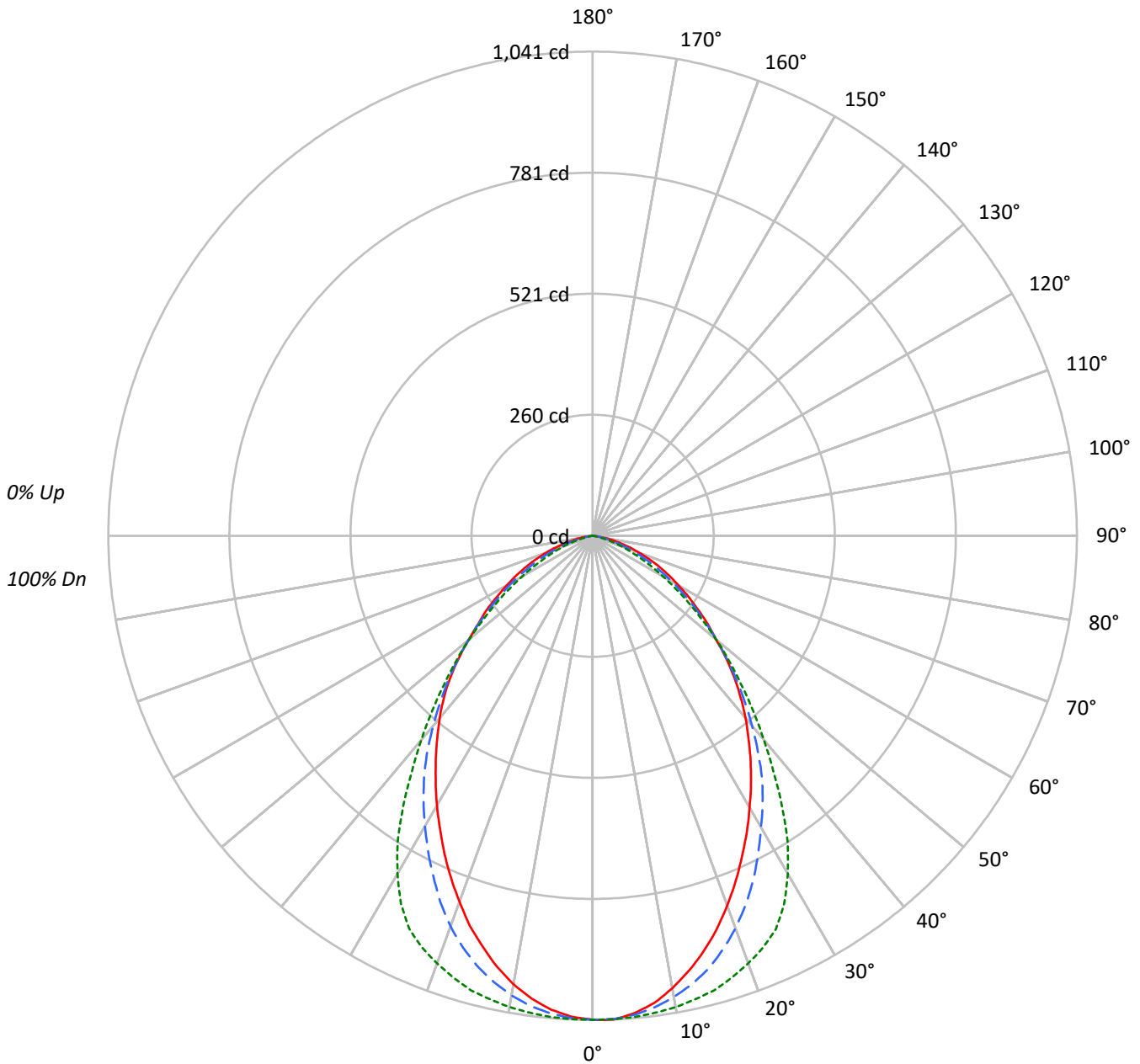
Lumens per Lamp: N/A  
Luminaire Lumens: 1911.1 lumens  
Efficiency: N/A  
Efficacy: 64.1 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 29.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42			
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	127841	127841	127841
5°	127084	128046	126122
10°	123214	128366	122154
15°	117559	128637	116262
20°	110604	127901	109388
25°	103021	126390	102180
30°	95726	119020	94960
35°	88786	106453	88126
40°	82079	91814	82015
45°	74796	78375	75386
50°	66034	66263	66416
55°	59180	54190	59416
60°	52311	43023	52385
65°	46046	32791	45581
70°	38183	23492	38183
75°	29714	13528	28623
80°	19314	3325	18465
85°	7189	987	5497



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.7	5.1
10°-20°	270.3	14.1
20°-30°	377.8	19.8
30°-40°	398.5	20.9
40°-50°	339.0	17.7
50°-60°	239.2	12.5
60°-70°	135.6	7.1
70°-80°	48.4	2.5
80°-90°	4.6	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	745.7	39.0
0°-40°	1144.3	59.9
0°-60°	1722.5	90.1
0°-90°	1911.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1911.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1041	1041	1041	1041	1041	
5°	1030	1034	1038	1031	1023	97
15°	924	963	1011	958	914	259
25°	760	817	932	809	754	350
35°	592	635	710	631	588	370
45°	430	437	451	439	434	331
55°	276	267	253	268	277	248
65°	158	136	113	136	157	157
75°	63	43	28	42	60	68
85°	5	2	1	2	4	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6
2.5°	1041.3	1039.4	1039.4	1039.4	1039.4	1039.4	1039.4	1039.4	1039.4	1039.9	1039.9
5°	1030.5	1029.7	1029.3	1029.3	1029.3	1029.3	1029.7	1031.3	1032.0	1033.2	1033.9
7.5°	1013.3	1011.8	1012.6	1012.6	1013.3	1014.2	1015.3	1016.9	1019.2	1020.7	1022.7
10°	987.7	986.1	988.0	988.9	991.2	992.4	994.3	996.6	1001.3	1003.6	1006.8
12.5°	957.7	956.9	957.7	960.9	963.2	964.8	967.1	972.1	976.8	981.8	987.3
15°	924.3	922.3	923.4	927.3	931.2	934.0	935.9	942.6	948.8	956.5	963.2
17.5°	886.9	884.2	887.2	890.4	895.5	897.8	900.5	907.9	916.4	925.0	932.4
20°	846.0	845.3	847.2	851.5	856.6	859.6	862.0	870.1	877.5	889.3	897.8
22.5°	803.6	804.4	805.9	810.6	814.2	818.4	821.9	829.3	837.9	848.8	859.6
25°	760.0	761.2	763.9	767.0	772.9	775.2	779.5	787.3	794.7	804.8	816.8
27.5°	718.0	718.3	721.5	723.1	728.5	733.6	735.5	743.7	752.2	760.0	770.5
30°	674.8	675.9	677.9	682.2	687.7	689.6	691.9	699.3	706.0	715.7	723.8
32.5°	633.5	632.8	635.1	637.4	643.7	647.2	648.3	656.9	662.7	672.4	680.3
35°	592.0	589.9	593.4	595.8	601.3	604.3	605.9	612.6	618.0	626.1	634.7
37.5°	550.3	551.9	553.4	555.4	558.0	558.9	563.5	565.1	572.1	578.3	583.0
40°	511.8	510.9	510.2	512.1	515.6	517.2	517.6	521.8	523.4	529.7	533.2
42.5°	470.5	470.9	470.5	470.9	472.9	472.9	474.0	476.7	477.8	479.8	484.1
45°	430.5	430.5	429.2	429.6	430.0	429.6	430.0	431.2	433.5	433.5	436.6
47.5°	388.8	387.9	389.5	388.4	387.6	387.2	388.4	387.2	389.5	389.5	390.4
50°	345.5	345.5	347.5	347.1	347.9	346.4	346.7	346.7	347.1	346.7	348.3
52.5°	312.1	311.4	310.5	308.6	309.4	307.8	307.8	308.2	307.0	306.6	304.7
55°	276.3	277.1	275.9	275.1	275.1	273.6	273.2	270.9	269.3	268.1	266.9
57.5°	244.0	244.7	244.4	242.4	240.1	240.5	239.8	237.4	233.8	231.5	229.6
60°	212.9	213.6	212.9	210.9	210.2	208.6	208.2	205.1	202.3	199.3	196.9
62.5°	184.9	184.9	184.5	181.7	179.8	180.2	178.2	175.9	172.4	168.2	164.6
65°	158.4	158.0	156.0	154.8	153.4	151.3	150.2	146.7	143.9	140.5	135.8
67.5°	131.9	130.7	130.0	128.8	125.3	124.9	123.3	120.3	116.3	113.6	109.8
70°	106.3	105.9	104.3	104.3	101.5	100.4	98.0	95.3	91.8	88.0	84.8
72.5°	84.1	83.2	81.8	80.2	77.8	77.1	75.1	72.3	69.3	65.4	61.4
75°	62.6	61.9	61.4	59.5	57.6	55.6	54.9	52.1	49.1	46.3	42.8
77.5°	44.0	43.2	42.0	40.8	39.7	38.5	37.3	35.0	32.3	29.9	26.9
80°	27.3	26.4	25.7	25.3	24.1	23.7	22.2	21.0	18.7	17.1	15.2
82.5°	14.0	14.0	13.2	12.8	12.1	11.6	11.3	10.2	9.0	7.8	6.7
85°	5.1	5.1	4.7	4.2	4.2	3.9	3.9	3.5	2.7	2.7	1.9
87.5°	0.4	0.4	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6
2.5°	1040.2	1039.9	1040.2	1040.2	1040.6	1040.6	1040.6	1040.2	1040.6	1040.2	1040.2
5°	1033.9	1035.1	1036.0	1036.7	1037.1	1037.5	1037.5	1037.9	1038.3	1038.3	1037.9
7.5°	1024.2	1026.6	1029.0	1030.5	1031.3	1032.0	1033.2	1033.9	1034.8	1034.4	1033.9
10°	1011.4	1015.3	1018.4	1021.6	1023.0	1024.2	1026.2	1027.8	1028.5	1029.0	1027.8
12.5°	993.1	998.6	1003.6	1008.7	1011.0	1012.6	1016.5	1019.2	1020.7	1020.7	1019.6
15°	970.2	978.0	985.4	992.0	995.9	998.2	1004.0	1007.9	1010.3	1011.4	1009.5
17.5°	942.6	951.4	960.4	969.0	972.9	976.4	984.6	990.1	995.1	995.9	993.5
20°	907.1	918.4	928.5	939.1	943.3	948.8	958.1	967.1	974.8	978.3	971.8
22.5°	867.5	879.8	889.3	902.1	907.9	913.7	925.9	937.1	950.7	958.1	946.5
25°	826.2	836.7	848.0	860.4	868.6	874.9	888.8	903.2	921.5	932.4	916.1
27.5°	781.8	791.1	804.8	818.4	824.6	832.4	849.2	864.7	882.2	891.9	879.8
30°	735.9	747.5	760.4	772.9	781.8	789.2	802.8	816.1	830.9	839.0	830.0
32.5°	690.3	701.6	712.5	726.2	731.2	737.8	749.9	761.2	772.5	779.9	769.3
35°	642.5	652.7	662.7	672.1	674.5	682.2	691.9	698.6	704.0	709.8	702.8
37.5°	590.4	598.1	603.2	613.3	617.2	618.4	626.1	630.8	636.7	637.9	637.4
40°	537.4	544.5	548.7	554.9	558.0	558.0	563.5	567.7	572.1	572.5	572.1
42.5°	488.0	491.5	495.0	498.9	498.1	502.8	505.1	507.0	510.2	510.2	510.9
45°	438.2	440.9	444.0	444.8	447.9	447.9	449.9	450.7	452.2	451.1	449.5
47.5°	391.9	393.0	393.4	396.9	397.7	395.0	397.4	397.7	397.4	397.4	396.5
50°	347.9	348.7	348.3	347.1	347.5	348.7	347.5	346.0	346.7	346.7	347.5
52.5°	305.1	303.5	302.8	302.8	301.2	301.2	299.3	298.5	298.1	296.6	298.5
55°	265.8	263.5	260.0	259.2	258.1	257.6	255.3	253.3	252.6	253.0	252.6
57.5°	228.0	224.5	222.2	221.5	220.3	218.0	215.2	213.2	212.9	212.1	212.1
60°	193.8	190.0	186.4	182.9	183.3	181.7	179.1	177.9	176.6	175.1	176.3
62.5°	162.7	158.4	154.5	151.0	148.7	147.5	145.5	143.6	142.5	141.3	142.8
65°	131.9	128.4	124.2	120.7	119.5	118.3	116.3	113.3	112.8	112.8	113.6
67.5°	104.3	100.4	96.6	94.1	92.6	91.1	90.3	88.7	87.6	86.8	87.1
70°	80.2	76.3	73.2	70.9	69.7	69.3	66.5	66.2	65.8	65.4	64.9
72.5°	58.4	55.2	52.6	51.0	49.4	48.2	47.5	46.3	45.9	45.9	45.9
75°	40.1	37.8	34.6	32.7	31.9	30.8	29.6	28.8	28.0	28.5	28.5
77.5°	24.1	21.8	19.9	18.3	17.9	16.7	15.5	14.8	13.6	13.6	14.0
80°	13.2	11.3	9.7	8.6	7.8	7.4	6.2	5.8	5.1	4.7	4.7
82.5°	5.8	4.7	3.9	3.5	3.1	2.7	2.3	1.9	1.9	1.6	1.9
85°	1.9	1.6	1.2	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6
2.5°	1039.9	1039.9	1039.4	1039.4	1039.4	1038.7	1038.7	1038.3	1037.9	1037.5	1036.7
5°	1037.1	1036.7	1036.0	1035.5	1035.1	1033.9	1032.8	1032.0	1030.9	1029.3	1028.5
7.5°	1033.2	1032.0	1030.5	1029.7	1028.5	1025.8	1023.9	1021.9	1020.0	1017.2	1014.2
10°	1026.6	1024.2	1021.9	1020.4	1018.4	1014.9	1011.0	1007.9	1003.6	999.8	995.4
12.5°	1017.2	1014.5	1009.8	1007.5	1005.2	1000.1	995.1	988.5	982.6	977.1	972.1
15°	1005.6	1000.5	995.1	992.0	988.5	980.3	972.5	965.5	957.7	951.1	942.9
17.5°	988.5	981.1	973.2	969.7	965.1	955.8	946.5	936.7	927.8	919.6	909.5
20°	962.8	954.6	944.5	939.1	935.2	922.7	913.7	902.8	893.5	883.3	872.1
22.5°	932.8	921.5	910.2	902.5	898.1	885.8	873.6	864.0	853.8	842.1	833.9
25°	899.0	884.9	871.3	863.6	856.9	843.7	832.0	821.9	809.4	799.4	791.1
27.5°	860.8	844.8	828.9	821.1	814.9	800.5	788.0	777.6	765.5	756.5	748.0
30°	815.3	800.8	785.7	779.5	772.1	757.3	742.9	733.6	720.4	710.9	701.6
32.5°	758.4	749.1	737.1	728.5	724.6	710.9	698.9	687.7	676.4	669.0	659.6
35°	696.2	688.0	677.9	673.3	668.2	659.6	649.9	640.2	631.2	624.2	615.6
37.5°	633.2	625.0	618.7	613.7	610.6	602.9	596.9	589.5	583.4	576.7	572.1
40°	567.7	565.4	558.9	556.5	555.7	547.1	542.1	536.2	532.4	528.5	525.7
42.5°	509.8	505.9	500.9	501.2	498.9	494.2	490.7	486.8	484.1	482.2	479.4
45°	452.6	449.5	447.2	449.1	445.2	443.7	440.9	440.5	438.6	435.1	433.9
47.5°	398.1	397.7	398.1	396.9	396.2	395.3	395.8	393.9	391.9	390.7	389.2
50°	348.3	348.7	349.4	350.6	347.9	349.1	348.7	348.3	348.3	347.1	347.9
52.5°	300.1	300.5	301.2	302.4	302.8	302.8	304.0	304.7	306.3	308.2	308.2
55°	254.5	257.2	258.8	260.7	259.5	261.9	263.0	266.5	267.8	267.8	269.3
57.5°	214.1	216.7	218.0	220.3	221.0	222.9	226.1	228.0	230.8	233.1	235.4
60°	177.0	178.2	181.4	184.9	184.0	188.8	191.1	194.2	197.7	199.3	202.3
62.5°	143.9	145.5	147.9	149.0	151.8	154.1	159.6	162.7	165.7	169.6	172.8
65°	114.4	115.9	118.3	120.7	121.8	125.3	128.1	133.5	136.2	140.5	143.9
67.5°	87.6	89.9	91.8	93.4	94.1	97.7	102.0	104.3	109.4	113.6	116.3
70°	65.4	67.4	69.7	69.3	70.9	73.5	76.7	80.2	84.1	88.0	91.1
72.5°	45.6	47.5	49.1	49.4	51.0	52.9	55.2	58.0	61.1	64.9	69.3
75°	28.8	29.2	30.8	31.5	32.3	34.6	36.6	39.3	42.0	45.2	47.9
77.5°	14.4	15.5	16.4	17.1	17.6	19.5	21.4	23.7	26.1	29.2	31.9
80°	5.5	5.8	7.0	7.4	8.1	9.3	10.9	12.1	14.0	16.4	17.9
82.5°	1.9	2.3	2.7	2.7	3.1	3.9	4.2	5.5	6.7	7.4	8.1
85°	0.7	0.7	0.7	0.7	0.7	1.2	1.2	1.6	1.9	2.3	2.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6
2.5°	1036.4	1036.4	1036.0	1035.5	1035.5	1035.5	1035.1	1035.1
5°	1027.0	1025.8	1025.5	1024.6	1024.2	1023.9	1022.7	1022.7
7.5°	1011.8	1010.3	1009.1	1007.9	1006.3	1005.2	1005.2	1003.6
10°	991.5	988.5	986.9	985.4	983.4	981.1	980.3	979.2
12.5°	967.1	960.9	959.3	956.5	953.5	951.9	949.1	949.1
15°	936.7	930.1	926.6	925.0	921.1	918.4	917.3	914.1
17.5°	901.3	896.2	890.7	888.4	884.2	880.7	879.1	878.7
20°	865.5	857.3	853.8	850.3	845.3	842.1	839.8	836.7
22.5°	824.2	816.8	811.7	809.4	805.2	799.7	795.9	795.9
25°	780.6	774.1	771.3	766.3	761.2	759.3	754.6	753.8
27.5°	739.0	732.4	726.9	724.3	718.3	715.7	711.8	710.2
30°	695.8	688.0	684.2	683.8	676.8	674.0	670.9	669.4
32.5°	652.7	646.0	642.1	639.8	636.7	632.0	629.3	627.7
35°	609.8	605.5	602.0	599.3	594.3	592.0	589.5	587.6
37.5°	565.1	561.2	559.6	557.3	554.9	550.7	549.9	548.3
40°	521.8	516.8	516.8	515.3	513.0	512.5	511.4	511.4
42.5°	476.7	474.3	474.0	474.3	472.9	472.0	470.9	473.6
45°	431.9	433.1	431.2	431.6	430.8	432.4	432.4	433.9
47.5°	390.7	389.2	389.9	390.7	391.9	391.9	391.5	391.1
50°	346.7	348.3	349.9	347.9	348.7	349.1	347.1	347.5
52.5°	309.0	309.4	310.5	309.4	310.5	310.2	310.9	309.4
55°	272.4	272.4	273.9	274.4	274.8	275.9	276.3	277.4
57.5°	237.0	238.9	240.9	240.5	242.1	243.6	242.4	243.6
60°	206.2	207.8	209.7	210.6	211.7	212.5	212.5	213.2
62.5°	175.1	178.2	179.8	181.4	181.4	182.9	184.5	184.9
65°	147.1	150.6	151.8	152.9	153.7	155.3	157.3	156.8
67.5°	120.7	123.0	124.5	125.3	127.7	128.4	130.0	131.6
70°	94.6	97.7	98.9	100.4	102.4	103.9	105.4	106.3
72.5°	72.3	74.7	75.5	77.1	79.0	80.6	81.3	82.5
75°	50.6	54.5	54.9	56.1	57.6	59.5	60.7	60.3
77.5°	33.4	36.2	36.6	38.2	39.7	41.2	41.7	42.0
80°	19.9	21.4	21.8	22.5	23.7	24.5	25.3	26.1
82.5°	9.3	10.2	10.9	10.9	11.6	12.5	12.5	12.8
85°	3.1	3.1	3.5	3.5	3.9	3.9	4.2	3.9
87.5°	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)